Factors Related to Outpatient Pharmacy Service Waiting Time at Hermina Daan Mogot Hospital In 2022

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Abstract
Introduction: The long waiting time for service is a potential problem that always has an impact on patient complaints in several health care facilities. Objective: This study aims to determine the factors related to waiting time for Outpatient Pharmacy services at Hermina Daan Mogot Hospital in 2022. Method: This type of research is quantitative with a cross-sectional study design. Data collection used secondary data obtained for 1 week retrospectively through the PASHMINA application using a form. Result and Discussion: The results showed that 69.3% of the waiting time for pharmaceutical services was inappropriate, 60.6% finished drug prescriptions, 51.9% <3items and 53.8% used BPJS payment. The results of the Chi square test showed that there was a relationship between the type of prescription (p-value=0.004, PR=1.709), number of drug items (p-value=0.0001, PR=3.023), payment status (p-value 0.0001) and waiting time for pharmaceutical services. Conclusion: The author suggests that the Management of Hermina Daan Mogot Hospital make efforts to improve by minimizing the number of concoction prescriptions, monitoring the number of drug items, developing SIMRS, commitment to discipline in drug prescribing and setting the pharmacy staff's official schedule more optimally.

Keyword: Pharmacy; Prescriptions; Payment; Waiting Time;
Introduction

The quality of health services is something that everyone who visits health care facilities expects. The World Health Organization (WHO) defines the quality of health services as the extent to which the health services provided can improve the desired degree of health (Alodan et al., 2020; WHO et al., 2018). Improving the quality of health services is influenced by 6 dimensions of health service quality as explained by IOM (The Institute of Medicine) which consists of safe, effective, timely, fair, efficient and patient-centered dimensions (Iman &; Lena, 2017; Wanarto, 2013).

The punctual dimension is one of the dimensions that is very crucial and illustrates important characteristics, because this dimension is felt directly by patients when getting services so that it can affect the patient's hospital on the quality of health services. One of these dimensions is related to service waiting time. Long waiting times for services are a potential problem that always has an impact on patient complaints in several health care facilities (Sriram &; Noochpoung, 2018; Alam et al., 2021). Not only that, in the National Quality Indicator (INM), outpatient waiting time is one of the indicators that must be monitored and reported regularly to the Ministry of Health through the SIMAR application (Ministry of Health, 2022).

One of the bottleneck problems is the long waiting time for outpatient services at the Pharmaceutical Installation. The waiting time for pharmacy services is the range of time needed by patients from submitting prescriptions to pharmaceutical installations until the drug is received by patients (Ekasari &; Bachtiar, 2019). The length of waiting time for pharmacy services based on Permenkes No. 129 of 2008 for finished drugs is <30 minutes, while for concocted drugs for <60 minutes (Ministry of Health, 2008).

Constraints theory is a methodology used to identify important factors that limit the running of a system to hinder the achievement of targets. The first step of the effort is to identify constraints in the system to find out the root cause of the problem so that improvement efforts are effective and efficient. In identifying obstacles, it can be seen from several aspects (Goldratt, 2008). The aspects identified are in line with Harrington's opinion regarding management that the factors that affect the running of a process in the system are divided into several elements, namely Man, Method, Machine, Material and Money (Priyono &; Marnis, 2008; Rohman, 2017).

Based on quality survey data from Hermina Daan Mogot Hospital in 2022, the waiting time for outpatient services has increased by 2 hours 10 minutes (exceeding the expected standard). From the hospital's data, the waiting time for pharmaceutical services has the longest waiting time which causes the extension of the patient's outpatient waiting time at Hermina Daan Mogot Hospital. In 2022 until October 2022, the speed of prescription drug service will be >10 minutes by 18% with an average service speed of 15 minutes. As for the speed of prescription drug service >20 minutes is 36.7% with a service speed of 43 minutes.

This achievement has not reached the standard and has increased compared to 2020 and 2021 (Quality and Accreditation of HDMG Hospital, 2022). This study aims...
to determine the factors related to the waiting time for Outpatient Pharmacy services at Hermina Daan Mogot Hospital in 2022.

Method

This study used a type of quantitative research with a \textit{cross-sectional} study design approach. The dependent variables in this study were the waiting time for outpatient pharmacy services and the independent variables in this study were the type of prescription, the number of drug items and the patient's payment status. This study was conducted in November 2022 - January 2022 at the Outpatient Pharmacy Installation of Hermina Daan Mogot Hospital, West Jakarta. The population in this study is the population of this study is all outpatients who received services at the Outpatient Pharmacy Installation of Hermina Daan Mogot Hospital totaling 1,337 patients.

The samples used in this study amounted to 264 samples selected using \textit{systematic random sampling} techniques with exclusion criteria for unredeemed drug prescriptions, prescriptions that had 2 types of prescriptions and incomplete pharmaceutical service data in the PASHMINA application. Data collection using secondary data obtained for 1 week retrospectively through the PASHMINA application using a fill-in sheet. Data analysis in this study was in the form of univariate analysis and bivariate analysis using \textit{the Chi square} test. This research has passed an ethical review by the Unive Code of Ethics Enforcement Board of the Esa Unggul Research Ethics Commission with Number: 0932-01.094/DPKE-KEP/FINAL-EA/UEU/I/2023.

Results and Discussion

A. Univariate Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacy Service Waiting Time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Compliant</td>
<td>166</td>
<td>62.9</td>
</tr>
<tr>
<td>Appropriate</td>
<td>98</td>
<td>37.1</td>
</tr>
<tr>
<td>Total</td>
<td>264</td>
<td>100</td>
</tr>
<tr>
<td>Types of recipes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concocted Drugs</td>
<td>104</td>
<td>39.4</td>
</tr>
<tr>
<td>Finished Medicine</td>
<td>160</td>
<td>60.6</td>
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<tr>
<td>Total</td>
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<td>100</td>
</tr>
<tr>
<td>Number of Medicinal Items</td>
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<td></td>
</tr>
<tr>
<td>&gt;3 Item</td>
<td>127</td>
<td>48.1</td>
</tr>
<tr>
<td>&lt;3 Item</td>
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<td>51.9</td>
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<tr>
<td>Total</td>
<td>264</td>
<td>100</td>
</tr>
<tr>
<td>Patient Payment Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BPJS</td>
<td>142</td>
<td>53.8</td>
</tr>
<tr>
<td>Private Insurance</td>
<td>57</td>
<td>21.6</td>
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<tr>
<td>Personal</td>
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<td>24.6</td>
</tr>
<tr>
<td>Total</td>
<td>264</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on the results of the study, the highest Proportion related to the description of waiting time for outpatient pharmacy services at Hermina Daan Mogot Hospital,
namely as many as 166 patients (62.9%) had waiting times for pharmaceutical services that were not suitable for both concocted and finished drugs. The average outpatient pharmacy service time at Hermina Daan Mogot Hospital in general is 24.66 minutes, both finished drugs and concocted drugs with the fastest time of 4 minutes and the longest time of 84 minutes. Another study conducted concluded that the waiting time for pharmaceutical services has not met the standards set in the Minimum Service Standards of the Ministry of Health of the Republic of Indonesia where the waiting time for prescription services at the outpatient pharmacy installation of RS PKU Muhammadiyah Singkil for non-concocted prescriptions is 84.27 minutes and concocted prescriptions are 111.53 minutes (Athfaal, 2019).

Based on the Decree of the Minister of Health of the Republic of Indonesia No.129 / Menkes / SK / II / 2008 concerning Minimum Service Standards Hospital, the waiting time indicator for finished drugs is at most 30 minutes and concocted drugs are no longer than 60 minutes (Ministry of Health of the Republic of Indonesia, 2008). The results are not in accordance with the standards set by Hermina Daan Mogot Hospital with the target of inappropriate outpatient pharmacy service time must reach 0%. Some of the causes related to the length of waiting time for services are: indiscipline of doctors in prescribing, problems with the hospital driver's license, not even drug preparation hospitals at the pharmacy depot, and the number of personnel serving at the Outpatient Pharmacy Depot is not in accordance with the standards.

the highest type of prescription is the prescription drug for 160 patients (60.6%). This result is in accordance with research related to this type of prescription has the same picture results for more drugs than concocted drugs where proportion finished drugs as much as 94.4% while concocted drugs as much as 5.6% (Miftahudin, 2019). Other studies also produced the same Proportion where the prescription of finished drugs (patents) was 75.4% while concocted drugs were 24.6% (Sahlawati, 2018). Similar studies concluded that Proportion was greater for prescription drugs as much as 80.5% compared to finished drugs as much as 19.5% (Arini et al., 2020).

Concocted drugs should not be given freely based on prescribing terms and regulations (Alkhatib et al., 2019; Campbell et al., 2020; Dooms & Carvalho, 2018). The finished drug prescribed is more than the concoction because the process of writing a prescription on the medication widget is easier than writing a concocted prescription. The problem identified is that there is no information or education around the Pharmaceutical Installation related to syrup drugs that have been declared safe. Not only that, some patients consider prescription concoctions to cure the disease faster than finished drugs.

Proportion the highest number of items ≤3 drug items was 137 patients (51.9%). The average number of items given in 1 recipe is 3.5 items (4 items) with a minimum of 1 item and a maximum of 7 medicinal items. Several related studies have the same results that Proportion the most with the number of drug items ≤3 items as much as 64% (Miftahudin, 2019) and other studies the number of items is slightly 51.3% (Sahlawati, 2018). WHO sets the number of drug items in one prescription where an average of 1.8-2.2 drug items is determined if rounded up to a standard of 3 items per prescription
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(Ministry of Health RI, 2011; WHO et al., 2018). The prescription of ≤3 drug items is slightly higher because most physicians are committed enough to prescribe according to the patient's needs (not the patient's wishes). However, Proportion drug >3 items is not small even from the average results it is known that almost all prescriptions have 4 drug items. This is because some patients tend to ask for additional drugs beyond patient complaints such as vitamins.

The problem identified is that the Medical Support Section of Hermina Daan Mogot Hospital has not made optimal efforts related to monitoring the number of specific drug items. During this time, the reporting of the average number of new drug items was monitored in general. So that efforts to improve the achievement of the number of drug items have not been carried out in a focused manner.

The highest hospital proportion payment status was 142 patients (53.8%) using BPJS payments. Research related to patient payment status has the same picture, where in the study of BPJS patients had a Proportion of 67% (Septini, 2019). Health financing paid by patients retrospectively can be in the form of fees for cash patient service and hospital reimplement such as insurance patients and BPJS. For insurance and BPJS patients, they have several procedures that are more than cash/personal patients (Rahmiyati, 2021). Based on medical record data and patient demographic data at Hermina Daan Mogot Hospital, in general, 56% of patients who come to the Outpatient Installation are BPJS patients, as many as 30% are private / out of pocket patients while the remaining 14% are Private / Corporate Insurance patients.

The strategic location of Hermina Daan Mogot Hospital, the surrounding area mostly has middle to lower economic status, so that more and more BPJS patients come to get health services (Public Relations of HDMG Hospital, 2022). Based on observations during the study, private insurance coverage patients and BPJS require more complicated pharmaceutical service procedures than private patients. The problem identified was that there was no person in charge appointed every shift outside the pharmacy service for drug preparation to carry out a series of file verifications.
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B. Bivariate Analysis

Table 2

Results of the analysis of the relationship between the type of prescription, the number of drug items, the patient’s payment status and the waiting time for outpatient pharmacy services at Hermina Daan Mogot Hospital in 2022

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pharmacy Service Waiting Time</th>
<th>Total</th>
<th>p-value</th>
<th>PR (CI 95%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Compliant N (%)</td>
<td>Appropriate N (%)</td>
<td>N (%)</td>
<td></td>
</tr>
<tr>
<td>Types of recipes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concocted Drugs</td>
<td>77 (74)</td>
<td>27 (26)</td>
<td>104 (100)</td>
<td>0.004</td>
</tr>
<tr>
<td>Finished Medicine</td>
<td>89 (55.6)</td>
<td>71 (44.4)</td>
<td>160 (100)</td>
<td></td>
</tr>
<tr>
<td>Number of Medicinal Items</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;3 item</td>
<td>104 (81.9)</td>
<td>23 (18.1)</td>
<td>127 (100)</td>
<td>0.0001</td>
</tr>
<tr>
<td>≤3 item</td>
<td>62 (45.3)</td>
<td>75 (54.7)</td>
<td>137 (100)</td>
<td></td>
</tr>
<tr>
<td>Patient Payment Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BPJS</td>
<td>127 (89.4)</td>
<td>15 (10.6)</td>
<td>127 (100)</td>
<td>0.0001</td>
</tr>
<tr>
<td>Private Insurance</td>
<td>28 (49.1)</td>
<td>29 (50.9)</td>
<td>57 (100)</td>
<td>0.0001</td>
</tr>
<tr>
<td>Personal</td>
<td>11 (16.9)</td>
<td>54 (83.1)</td>
<td>65 (100)</td>
<td></td>
</tr>
</tbody>
</table>

The highest number of prescription drugs was 77 patients (74%) with waiting times for pharmaceutical services that were not suitable (74%). In finished drug prescriptions, Proportion was highest with inappropriate waiting time as many as 89 patients (55.6%). The average waiting time for pharmacy services for finished drugs is 18.4 minutes with the fastest time of 4 minutes and the longest of 59 minutes. As for concocted drugs, the average waiting time is 34.2 minutes with the fastest time for 9 minutes and the longest for 84 minutes. There is a significant relationship between prescription type and waiting time for outpatient pharmacy services at Hermina Daan Mogot Hospital in 2022 (p-value=0.004 and α=0.05).

Prescription drugs are 2 times more likely to have the appropriate pharmacy service waiting time compared to prescription drugs (PR = 1.709). This is in accordance with related research that there is a relationship between prescription types and pharmaceutical waiting times with a p-value of 0.0005 with an OR value of 5.47 patent drugs have a 5 times chance of fast service time compared to concocted drugs (Sahlawati, 2018). Other studies had similar results for non-concocted or finished drugs for 19 minutes (standard 10-15 minutes) and 31 minutes for concocted drugs (standard 15-30 minutes).

The Result based on the target of the hospital is not achieved, but based on the Minimum Service Standards the hospital is still in accordance with the standard (Fitriah et al., 2019). Prescription concoction drugs require time for calculating the drugs needed, the process of compounding drugs, packaging both in powder / capsule / salff so that it
requires a longer waiting time for pharmaceutical services compared to finished drugs (Ministry of Health of the Republic of Indonesia, 2004a, 2019a; Rusli, 2016).

Based on the average waiting time for each type of prescription, concocted drugs have a longer waiting time than concocted drugs. The results are not in accordance with the standard time determined at Hermina Daan Mogot Hospital, which is 10 minutes for finished drugs while 20 minutes for concocted drugs. The reason is that the amount of energy is only 4-5 people. This is not in accordance with outpatient pharmacy labor standards, 1 pharmacist has a workload of 50 prescriptions while the average prescription per day is 300 prescriptions (standard 6 officers) (Ministry of Health, 2016).

In addition, there is no policy related to the terms and conditions of patients who meet the criteria for getting concocted drugs, so the number of concocted drugs cannot be controlled. Doctors identified as prescribing concoctions are pediatric, cardiac, lung and nerve specialists where drugs are not theoretically included in the criteria for concoction drugs. This is not in accordance with the related theory that drugs concoction can be given if it meets certain conditions and criteria (Alkhatib et al., 2019; Campbell et al., 2020; Dooms & Carvalho, 2018). The existence of information and education around the Pharmaceutical Installation related to syrup drugs that have been declared safe causes patients to refuse to be given syrup drugs.

Proportion was highest in the number of drug items >3 items with inappropriate waiting times of 104 patients (81.9%). In the number of drug items ≤3 items, Proportion was highest with a corresponding waiting time of 75 patients (54.7%). Where with an average of 3.5 (4) drug items per prescription and a minimum of 1 item a maximum of 7 drug items. The average pharmacy service waiting time for the number of <3 drug items was 19.2 minutes with the fastest time being 4 minutes and the longest time being 64 minutes. As for the average pharmacy service waiting time on the number of drug items >3 for 30.6 minutes with the fastest time for 5 minutes and the longest time 84 minutes.

There is a significant relationship between the number of drug items and the waiting time for outpatient pharmacy services at Hermina Daan Mogot Hospital in 2022 (p-value = 0.0001 and α=0.05). The number of drug items ≤3 items, 3 times more likely to have the corresponding pharmacy service waiting time compared to drug items >3 items (PR= 3,023). Related research produces similar significance where p-value = 0.011 with OR 1.79 a small number of drug items is 2 times more likely to get pharmaceutical services faster than a large number (Sahlawati, 2018).

The results of this study are in accordance with the criteria determined by WHO where the standard number of drug items for each prescription/patient is 1.8-2.2 items (if rounded up to 3 drug items). The increasing number of drug items is directly proportional to the increase in waiting time for pharmaceutical services (Ministry of Health, 2004a, 2019a; Rusli, 2016).

From the results of the study, it can also be seen that the waiting time for the number of >3 drug items is longer than the number of <3 items. Specialists who prescribe drugs >3 items are indicated to prescribe drugs that should be prescribed by other specialists, this is because monitoring the number of drug items per prescription has not been
optimally carried out per specialist. In addition, there is no written policy regarding the number of drug items that must be done by a specialist, it has not been determined exactly what patient criteria can be prescribed >3 drug items.

The highest hospital Proportion BPJS payment with inappropriate waiting times was 127 patients (89.4%). Private Insurance Payout, Proportion highest with corresponding waiting time of 29 patients (50.9%). Private Payment, Proportion highest with suitable waiting time of 54 patients (83.1%). The average waiting time for BPJS pharmacy services is 32 minutes with the fastest time being 8 minutes and the longest being 84 minutes. Private Insurance Patients for 18.2 minutes with the fastest time of 5 minutes and the longest of 63 minutes. Private patients, the average waiting time for pharmacy services is 14 minutes with the fastest time of 4 minutes and the longest of 75 minutes. There is a significant relationship between payment status and waiting time for outpatient pharmacy services at Hermina Daan Mogot Hospital in 2022 ($p$-value=0.0001 and $\alpha=0.05$).

Personal payments have an 8 times chance of having the appropriate pharmacy service waiting time compared to BPJS. Private insurance has 6 times the opportunity to have the appropriate pharmacy service waiting time compared to BPJS. Related research concluded that there is a significant relationship between patient payment status and pharmacy service waiting time with static test results obtained $p$-value = 0.0094 and OR value = 1.50 cash payment status has a chance of 2 times with fast service time, compared to BPJS status (Sahlawati, 2018). This is in accordance with the related theory that BPJS patients require longer service times than Private and Private Insurance patients (Rahmiyati, 2021). The reason for the long waiting time for pharmacy in BPJS patients is because it requires more complicated pharmacy service procedures starting from file verification, matching national formulary criteria to chronic drug criteria which require opening 2 separate applications from SIMRS. For insurance patients, it is necessary to verify and separate drugs that are included in the category of vitamins and herbs that have not been

### Conclusion

Based on the results of research conducted at the Outpatient Installation of Hermina Daan Mogot Hospital in 2022, the conclusion obtained is that the highest hospital Proportion is that the waiting time for pharmaceutical services is not suitable for both concocted drugs and finished drugs as many as 166 patients (62.9%). The highest number of prescriptions was 160 patients (60.6%) prescribing finished drugs. The highest number of drug items was the number of <3 drug items, which was 137 patients (51.9%). The highest hospital program in the payment status variable was patients with BPJS as many as 142 patients (53.8%). The highest number of prescription drugs with waiting times for inappropriate pharmaceutical services was 77 patients (74%) In finished drug prescriptions, Proportion was highest with inappropriate waiting time as many as 89 patients (55.6%).

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There was a significant relationship between prescription type and waiting time for outpatient pharmacy services with $p$ value $= 0.004$ ($\alpha = 0.05$). Prescription drugs are 2 times more likely to have the appropriate pharmacy service waiting time compared to prescription drugs ($PR = 1.709$).

Proportion highest number of drug items $>3$ items with inappropriate waiting times as many as 104 patients (81.9%). The number of drug items $\leq 3$ items, Proportion highest with a corresponding waiting time of 75 patients (54.7%). There was a significant relationship between the number of drug items and the waiting time for outpatient pharmacy services with $p$-value $= 0.0001$ ($\alpha = 0.05$). The number of drug items $\leq 3$ items, 3 times more likely to have a suitable pharmacy service waiting time compared to drug items $>3$ items ($PR = 3.023$). The highest hospital Proportion BPJS payment with inappropriate waiting times was 127 patients (89.4%).

Private Insurance Payout, Proportion highest with corresponding waiting time of 29 patients (50.9%). Private Payment, Proportion highest with suitable waiting time of 54 patients (83.1%). There was a significant relationship between patient payment status and waiting time for outpatient pharmaceutical services with $p$-value $= 0.0001$ ($\alpha = 0.05$). Personal payments are 8 times more likely to have the appropriate pharmacy service waiting time compared to patients with BPJS. A private insurance has a 6 times chance of having a suitable pharmacy service waiting time compared to BPJS.
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Reference


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